

CHECKLIST ENVIRONMENTAL ASSESSMENT

Proposed Action: Approve Drilling Permit (Form 22)

Project/Well Name: Wilcoxon 19-2

Operator: Karsted Operating, LLC

Location: SW NW Section 19 T34N R46E

County: Daniels MT; **Field (or Wildcat):** Wildcat

Proposed Project Date: 6/28/2021

I. DESCRIPTION OF ACTION

Karsted Operating, LLC plans to re-enter this well at a depth of 6,025' TD to test the Ratcliffe formation.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS, OR INDIVIDUALS CONTACTED

Montana Bureau of Mines and Geology, GWIC website (Daniels County Wells).

US Fish and Wildlife, Region 6 website

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Daniels County

Montana Natural Heritage Program Website (FWP)

Heritage State Rank= S1, S2, S3, T34N R46E

Montana Cadastral Website

Surface Ownership and surface use Section 19 T34N R46E

Montana Department of Natural Resources MEPA Submittal

2. ALTERNATIVES CONSIDERED

No Action Alternative: The proposed well would not be re-entered.

Action Alternative: Karsted Operating, LLC would have permission to re-enter the well.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

3. AIR QUALITY

Long drilling time: No, 3-6 days drilling time.

Unusually deep drilling (high horsepower rig): No, triple drilling rig to re-enter well.

Possible H₂S gas production: Yes, possible H₂S gas from the Mississippian formations.

In/near Class I air quality area: Fort Peck Indian Reservation is located about 4 miles to the south.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211. AQB review.

Comments: No special concerns – using rig to re-enter well to 6,025' TD. If there are no gas gathering systems nearby, associated gas can be flared under Board Rule 36.22.1220.

4. WATER QUALITY

Salt/oil based mud: Use freshwater and freshwater mud system for re-entry.

High water table: No high-water table anticipated at this location.

Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral drainage about 175' to the west. West Fork Poplar River is located about 7/10 of a mile to the south. Hell Creek is located about 9/10 of a mile to the southeast.

Water well contamination: No water wells within a ½ mile radius.

Porous/permeable soils: Yes, sandy gravel.

Class I stream drainage: No.

Groundwater vulnerability area: No.

Mitigation:

☐ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☒ Closed mud system

☒ Off-site disposal of **solids/liquids** (in approved facility)

Comments: Steel surface casing has been run to 750' and cemented to surface to protect ground water. (Rule 36.22.1001).

5. SOILS/VEGETATION/LAND USE

Vegetation: Grassland.

Stream crossings: Only ephemeral drainages.

High erosion potential: No, existing location.

Loss of soil productivity: None, location to be restored after drilling well, if well is nonproductive.

Unusually large wellsite (Describe dimensions): No, existing location 240' X 340'.

Damage to improvements: Slight, surface use is grazing land.

Conflict with existing land use/values: Slight

Mitigation

- ☐ Avoid improvements (topographic tolerance)
- ☐ Exception location requested
- ☒ Stockpile topsoil
- ☐ Stream Crossing Permit (other agency review)
- ☒ Reclaim unused part of wellsite if productive
- ☐ Special construction methods to enhance reclamation

Access Road: Access will be off Hagen Rd and existing 2-track.

Drilling fluids/solids: Any solids from drilling out cement and bridge plugs will be hauled off site and disposed of at Clean Solutions landfill. All drilling water will be disposed of at the Fugere 3-30 disposal well.

6. HEALTH HAZARDS/NOISE

Proximity to public facilities/residences: No residences within ½ mile radius.

Possibility of H2S: Yes, possible H2S gas from the Mississippian formations.

In/near Class I air quality area: No.

Size of rig/length of drilling time: 3-16 days drilling time.

Mitigation:

- ☒ Proper BOP equipment
- ☐ Topographic sound barriers
- ☐ H2S contingency and/or evacuation plan
- ☐ Special equipment/procedures requirements
- ☐ Other:

7. WILDLIFE/RECREATION

Sage Grouse: NA

Proximity to sensitive wildlife areas (DFWP identified): None.

Proximity to recreation sites: None.

Creation of new access to wildlife habitat: None.

Conflict with game range/refuge management: None.

Threatened or endangered Species: Species identified as threatened or endangered in Daniels County are the Whooping Crane and Piping Plover. MTFWP Natural Heritage Tracker website lists four (4) species of concern. They are the Sprague's Pipit, Baird's Sparrow, Bobolink, and Iowa Darter.

Mitigation:

- ☐ Avoidance (topographic tolerance/exception)
- ☐ Other agency review (DFWP, federal agencies, DNRC Trust Lands, Sage Grouse Habitat Conservation Program)
- ☐ Screening/fencing of pits, drillsite
- ☐ Other:

Comments: Private grass lands. There may be species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands. No concerns.

IV. IMPACTS ON THE HUMAN POPULATION

8. HISTORICAL/CULTURAL/PALEONTOLOGICAL

Proximity to known sites: None.

Mitigation

☐ avoidance (topographic tolerance, location exception)

☐ other agency review (SHPO, DNRC Trust Lands, federal agencies)

Other:

9. SOCIAL/ECONOMIC

Substantial effect on tax base

☐ Create demand for new governmental services

☐ Population increase or relocation

Comments: No concerns.

IV. SUMMARY

No long term impacts expected. Some short term impacts will occur, but can be mitigated.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

**EA Checklist
Prepared By:**

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Date: 05/17/21